

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 14-30 are currently pending. Claims 14, 19, 22, and 23 have been amended; and Claims 24-30 have been added by the present amendment. The changes and additions to the claims are supported by the originally filed specification and do not add new matter.¹

In the outstanding Office Action, Claim 19 was objected to as being in improper form; Claim 23 was objected to as containing an informality; and Claims 14-18 and 20-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,697,013 to McFarland et al. (hereinafter “the ‘013 patent”) in view of U.S. Patent No. 7,024,188 to Khun-Jush et al. (hereinafter “the ‘188 patent”).

Applicants wish to thank the Examiner for the interview granted Applicants’ representative on June 5, 2008, at which time the outstanding rejections of the claims were discussed. The Examiner indicated that the rejections would be reconsidered, pending the Examiner’s further consideration of the claims upon formal submission of a response to the outstanding Office Action.

Regarding the objection to Claim 19, it is noted that MPEP § 608.01(n) states the following:

[g]enerally, a multiple dependent claim is a dependent claim which refers back in the alternative to more than one preceding independent or dependent claim.

The second paragraph of 35 U.S.C. 112 has been revised in view of the multiple dependent claim practice introduced by the Patent Cooperation Treaty. **Thus 35 U.S.C. 112 authorizes multiple dependent claims** in applications filed on and after January 24, 1978, **as long as they are in the alternative form** (e.g., “A machine according to claims 3 or 4, further comprising---”).

¹ See, e.g., page 9, lines 18-24 and page 12, lines 29-36 of Applicants’ specification; also see Figure 4.

However, as discussed in the interview of June 5, 2008, Claim 19 has been amended to no longer be in multiple dependent form. In particular, Claim 19 has been amended to depend from Claim 17, and Claim 24, which recites limitations analogous to the limitations of Claim 19, has been added to depend from Claim 18. Accordingly, it is respectfully requested that the objection to Claim 19 be withdrawn.

Regarding the objection to Claim 23, Claim 23 has been amended to recite the phrase “configured to,” rather than “adapted to,” as discussed during the interview of June 5, 2008. Accordingly, the objection to Claim 23 is believed to have been overcome.

Amended Claim 14 is directed to a method of operating a wireless network, comprising:

detecting at least one signal of an external radio source, by a network device of said wireless network, while data is transmitted over the wireless network and said network device does not send data to another network device of said wireless network; and

changing a communication channel or frequency band, if said at least one signal overlaps with a currently used communication channel or frequency band.

Regarding the rejection of Claim 14 under 35 U.S.C. § 103(a), the ‘013 patent is directed to radar detection and dynamic frequency selection for wireless local area networks. In particular, the ‘013 patent discusses that in one embodiment, a radio receiver circuit 200 of an access point listens for wireless LAN data packets. The ‘013 radio receiver circuit 200 is configured to detect radar signals while waiting to receive and respond to normal LAN traffic. Upon detecting an event, the ‘013 patent discusses that the receiver analyzes the incoming signal to determine whether or not it is a regular WLAN packet. The ‘013 patent discusses that various types of unrecognized events can be detected by the receiver, which include noise fluctuations, collisions between WLAN stations or hidden nodes, co-channel interference, and other non-LAN wireless traffic, such as cordless phone transmissions, and

the like.² The '013 patent further discusses that the received event is analyzed with respect to periodicity, pulse characteristics, burst characteristics, and other similar parameters in a pattern-matching type of process to determine whether the event is a radar signal or not.³

However, it is respectfully submitted that the '013 patent fails to disclose detecting at least one signal of an external radio source, by a network device of said wireless network, while data is transmitted over the wireless network and said network device does not send data to another network device of said wireless network. Rather, as discussed above, the '013 patent simply discusses that a radio receiver circuit 200 detects radar signals **while waiting to receive and respond** to normal WLAN traffic.⁴ Further, the '013 patent discusses that during high traffic conditions, or when concurrently receiving a strong signal, the radar detection system **may not be able to adequately detect and identify all possible radar interference events**.⁵ The '013 patent does not disclose that the radio receiver circuit 200 detects at least one signal of an external radio source *while data is transmitted over the wireless network*.

Further, it is respectfully submitted that the '188 patent fails to remedy the deficiencies of the '013 patent, as discussed above. The '188 patent is directed to a wireless communication system with detection of foreign radiation sources. In particular, the '188 patent discusses achieving periods of time during which measurements for radar signals can be carried out by an access point in an IEEE 802.11 system. The '188 patent further discusses how the detection of radar signals is carried out during the "quiet periods" which have been achieved by means of the '188 invention.⁶

However, it is respectfully submitted that the '188 patent fails to disclose detecting at least one signal of an external radio source, by a network device of said wireless network,

² See '013 patent, column 4, lines 51-62.

³ Id. at column 5, lines 5-10.

⁴ Id. at column 4, lines 53-55.

⁵ Id. at column 8, lines 34-37 and column 11, lines 53-56.

⁶ See '188 patent, column 4, lines 36-43.

while data is transmitted over the wireless network and said network device does not send data to another network device of said wireless network. Rather, the '188 patent discusses that in order to detect radar signals, it is necessary to interrupt the normal operation of the wireless network and order so-called "**quiet periods.**"⁷ That is, the detection of radar signals in the '188 patent does not occur *while data is transmitted over the wireless network*.

Thus, no matter how the teachings of the '013 and '188 patents are combined, the combination does not teach or suggest detecting at least one signal of an external radio source, as defined in Claim 14. Accordingly, it is respectfully submitted that independent Claim 14 (and all associated dependent claims) patentably defines over any proper combination of the '013 and '188 patents.

Amended Claim 22 recites limitations analogous to the limitations recited in Claim 14. Moreover, Claim 22 has been amended in a manner analogous to the amendments to Claim 14. Accordingly, for reasons analogous to the reasons stated above for the patentability of Claim 14, it is respectfully submitted that independent Claim 22 patentably defines over any proper combination of the '013 and '188 patents.

Amended Claim 23 recites, in part,

a radar detector configured to detect a presence of said radar signal, while data is transmitted over the wireless network and said RF unit does not send the data signal to another network device of said wireless network.

As noted above, the '013 and '188 patents, alone or in proper combination, fail to disclose the step of detecting recited in Claim 14. Thus, the '013 and '188 patents fail to disclose the radar detector of Claim 23. Accordingly, for reasons analogous to the reasons stated above for the patentability of Claim 14, it is respectfully submitted that independent Claim 23 patentably defines over any proper combination of the '013 and '188 patents.

Dependent Claim 15 is directed to the method according to claim 14, wherein

⁷ See '188 patent, column 4, lines 36-57.

said step of detecting is performed by ***at least one further network device*** of said wireless network, and

said further network device does not send data to another network device of said wireless network.

It is respectfully submitted that the '013 and '188 patents, alone or in proper combination, fail to disclose that ***at least one further network device*** detects a radar signal, as recited in Claim 15. Further, as discussed during the interview of June 5, 2008, the "at least one further network device" is **different** from the "network device" of Claim 14. That is, as defined in Claim 15, both the "network device" and the "at least one further network device" perform the claimed step of detecting.

For a non-limiting example, the effect of using **at least two network devices** for the detection of radar signals is that the reliability of detecting a radar signal is increased because more network devices are involved. Further, since more network devices are involved, it is possible to detect radar signals all of the time.⁸ Thus, an "overall radar detection" is achieved, as illustrated in Figure 4 of the present application. Accordingly, it is respectfully submitted that dependent Claim 15 patentably defines over any proper combination of the '013 and '188 patents.

The present amendment also sets forth new Claims 24-30 for examination on the merits. No new matter has been added. As noted above, new Claim 24 recites limitations analogous to the limitations of dependent Claim 19, but depends from Claim 18. Accordingly, an examination on the merits of Claim 24 is respectfully requested.

New Claims 25 and 26 recite, in part,

detecting at least one signal of an external radio source,
by a network device of said wireless network, whenever the
network device is not sending data.

New Claim 27 recites, in part,

⁸ See Figure 4 of the present application, illustrating that a central controller CC, wireless terminal WT1, and wireless terminal WT2 are all detecting radar signals at times when they do not send data.

a radar detector configured to detect a presence of said radar signal whenever the network device is not sending data.

As noted above, the '013 and '188 patents, alone or in proper combination, fail to disclose detecting while data is transmitted over the wireless network, as defined in Claim 14. Thus, the '013 and '188 patents fail to disclose detecting *whenever the network device is not sending data*, as defined in Claims 25 and 26. Further, the '013 and '188 patents fail to disclose a radar detector configured to detect *whenever the network device is not sending data*, as defined in Claim 27. Accordingly, it is respectfully submitted that new Claims 25-27 patentably define over any proper combination of the '013 and '188 patents.

New Claims 28 and 29 recite, in part,

detecting at least one signal of an external radio source
by at least one of the plurality of network devices at any given
time.

New Claim 30 recites, in part,

wherein at least one of the plurality of network devices
is configured to detect the presence of said radar signal at any
given time.

Regarding new Claims 28-30, it is respectfully submitted that these new features are not disclosed or suggested by the applied references.

Thus, it is respectfully submitted that independent Claims 14, 22, 23, and 25-30 (and all associated dependent claims) patentably define over any proper combination of the '013 and '188 patents.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

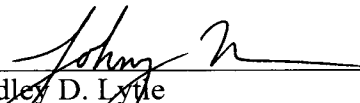
Respectfully submitted,

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